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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,663	08/06/2001	William M. Ayers	901715-ETT	3905

7590 11/21/2003

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EXAMINER

MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

0012

# Office Action Summary

Application No.

09/720,663

Applicant(s)

AYERS, WILLIAM M.

Examiner

Kishor Mayekar

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 22-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-21 and 32-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group II, claims 11-21 in Paper No. 11 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Also, new claims 32-34 are examined with the above elected claims 11-21.

### ***Specification***

3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, the Markush group is improperly recited. It should be in the format "selected from the group consisting of ...".

In claim 16, the phrase "the precursor material" lacks antecedent basis.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOISAN et al. (6,224,836) in view of MUTTERER, JR. et al. (6,258,329). MOISAN's invention is directed to a device for exciting a gas by a surface wave plasma. MOISAN discloses in Fig. 6 that the device comprises a source of microwave radiation 56, a tube 40 made of a dielectric material such as silica through which tube a gas column to be excited flows, an enclosure comprised of hollow structure 24 and/or sleeves 42 and 44 made of an electrically conductive material (metal), a manifold 60, a treatment unit 66, a dehydration unit 68, and sampling cells 78 and 80. MOISAN contemplates that the device can be used for the purifying of gaseous effluents (col. 4, lines 15-17). The difference between MOISAN and the above claims are MOISAN is silent on the use of metal enclosure as the microwave reflecting enclosure and the use of a feed-back control system. MUTTERER shows in a system for carrying out microwave assisted chemical reactions that cavities 12 and attenuator 13 are formed of structural metals that reflects microwaves (col. 4, lines 5-8) and a vessel 16 for holding materials in the cavity is of microwave transparent material while microwaves from the source are applied thereto (col. 4, lines 64-67). MUTTERER also shows the use of a control system 20 operatively associated with sensor(s) 17 (col. 4, lines 35-57). As to the

first difference, since MUTTERER discloses the use of metals that reflects microwaves, it appears that MOISAN's metal enclosure possesses the recited property in absence of evidence to the contrary. As to the latter difference, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified MOISAN's teachings as suggested by MUTTERER because "the provision of mechanical or automatic means to replace manual activity" has been held to be obvious, *In re Venner* 120 USPQ 192.

As to the subject matter of claim 16, the reciting of the material to be treated cannot be given any patentable weight in a claimed device.

As to the subject matter of claim 17, the selection of any of known equivalent vapor removal devices would be within the level of ordinary skill in the art.

As to the subject matter of claims 20 and 21, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings because the manner in which an apparatus operates is not germane to the issue of patentability of the apparatus itself. *Ex parte Wikdahl* 10 USPQ 2d 1546 (BPAI 1989); *Ex parte McCullough* 7 USPQ 2d

1889 (BPAI 1988); *In re Finterswalder* 168 USPQ 530 (CCPA 1971); *In re Casey* 152 USPQ 235 (CCPA 1967).

8. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOISAN '836 in view of MUTTERER '329. The further difference between the references applied above and the instant claims is the intended use of the system. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings because it has been held on the intended use of a device that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2d 1525.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (703) 308-0477. The examiner can normally be reached on Monday-Thursday.

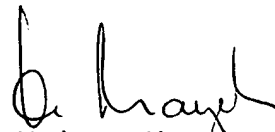
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax

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phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Kishor Mayekar  
Primary Examiner  
Art Unit 1753

KM